

## **Title 159 - STATE FIRE MARSHAL**

### **Chapter 10 - OUT-OF-SERVICE UST SYSTEMS AND CLOSURE REQUIREMENTS**

#### **001. OUT-OF-SERVICE TANKS.**

**001.01. TEMPORARILY OUT OF SERVICE TANKS.** When an UST system is taken temporarily out of service, owners and operators must continue operation and maintenance of corrosion protection in accordance with §002 in Chapter 6, and any release detection in accordance with Chapter 7. Chapter 8 must be complied with if a release is suspected or confirmed. However, release detection is not required as long as the UST system is empty. The UST system is empty when all materials have been removed using commonly employed practices so that no more than 2.5 centimeters (one inch) of residue or 0.3 percent by weight of the total capacity of the UST system, remain in the system.

**001.02.** When an UST system is taken temporarily out of service for 3 months or more, owners and operators must also comply with the following requirements:

**001.02A.** Leave vent lines open and functioning; and

**001.02B.** Cap and secure all other lines, pumps, manways, and ancillary equipment.

**001.03.** When an UST system is taken temporarily out of service for more than 12 months, owners and operators must permanently close the UST system if it does not meet either performance standards in Chapter 4 for new UST systems or the upgrading requirements in Chapter 5, except that the spill and overfill equipment requirements do not have to be met. Owners and operators must permanently close the substandard UST systems at the end of this 12-month period in accordance with §§002-005 of this chapter, unless the State Fire Marshal provides an extension of the 12-month temporary out of service period. Owners and operators must complete a site assessment in accordance with §003 of this chapter before such an extension can be applied for. If an extension is granted, an owner or operator must perform a tightness test on the tank and piping prior to placing the tank back in service.

**001.04. PERMANENTLY OUT OF SERVICE TANKS.** When a tank is taken permanently out of service for more than 12 months, owners and operators must permanently close the UST system.

## **002. PERMANENT CLOSURE AND CHANGES-IN-SERVICE.**

**002.01.** At least (30) days before beginning either permanent closure or a change in service under §002.02 and §002.03 below, owners and operators must notify the State Fire Marshal of their intent to permanently close or make the change in service.

**002.02.** To permanently close a tank, owners and operators must empty and clean it by removing all liquids and accumulated sludge. All tanks permanently closed must also be either removed from the ground or filled with an inert solid material. Permanent closures shall be done only by a licensed contractor (Chapter 3) and require a permit pursuant to Chapter 2.

**002.03.** Continued use of an UST system to store a non-regulated substance is considered a change-in-service. Before a change-in-service, owners and operators must empty and clean the tank by removing all liquid and accumulated sludge and conduct a site assessment in accordance with §003 below.

[*Note:* The following cleaning and closure procedures may be used to comply with this section:

American Petroleum Institute Recommended Practice 1604, "Removal and Disposal of Used Underground Petroleum Storage Tanks";

American Petroleum Institute Publication 2015, "Cleaning Petroleum Storage Tanks";

American Petroleum Institute Recommended Practice 1631, "Interior Lining of Underground Storage Tanks," may be used as guidance for compliance with this section; and

The National Institute for Occupational Safety and Health "Criteria for a Recommended Standard...Working In Confined Space" may be used as guidance for conducting safe closure procedures at some hazardous substance tanks.]

## **003. ASSESSING THE SITE AT CLOSURE OR CHANGE-IN-SERVICE.**

**003.01.** Before a permanent closure or a change-in-service is completed, owners and operators must perform a closure assessment to measure for the presence of a release where contamination is most likely to be present at the UST site.

**003.01A.** If free product is present on the ground water or contamination discovered in the soils or in the ground water at the time a tank is removed, this sampling procedures portion of this assessment report does not need to be performed provided the Department of Environmental Quality is notified and the owner and/or operator begins remedial action in accordance with Department of Environmental Quality regulations.

**003.01B.** The requirements of this section are satisfied if one of the external release detection methods allowed in Chapter 7 is operating in accordance with the requirements in §004.05 and §004.06 of that chapter at the time of closure, and indicates that no release has occurred.

**003.02. Analysis of samples.** Soil and ground water samples taken at time of closure shall be analyzed by laboratory methods to detect and quantify the presence of the regulated substance last stored in the tank system.

**003.02A.** Samples shall be analyzed using test methodologies, procedures, and instrumentation approved by the Department of Environmental Quality. At a minimum the following additional requirements must be met:

**003.02A1.** Test methodology procedures regarding proper handling and preservation of samples shall be followed.

**003.02A2.** Proper chain of custody shall be maintained for each sample.

**003.02A3.** Samples shall be immediately sealed in their appropriate containers after collection.

### **003.03. In-Place Closure Assessment**

**003.03A.** Soil borings must provide the necessary data to document site conditions. The soil borings shall be a minimum of two inches in diameter and be completed using a hollow stem auger drilling. Evidence of petroleum contamination in the soils or ground water and the corresponding depth of contamination shall be documented in the State Fire Marshal closure assessment report. Notification of any contamination shall be made in accordance with §004.02 of this chapter.

### **003.03B. Tank Assessment**

**003.03B1.** One boring shall be drilled through the backfill at each end of each tank. If the distance between any of the borings exceeds 25 feet, as measured along the excavation perimeter, a boring midway between the two is necessary.

**003.03B2.** All borings shall continue until soil contamination or ground water is encountered. Borings may continue after contamination is discovered, but soil or ground water samples shall be collected at the point at which contamination is initially encountered; and

**003.03B3.** One soil sample shall be collected for every five (5) feet of boring advancement and each sample shall be analyzed in accordance with the procedures in §003.02 above. If ground water is encountered, one sample of ground water shall be collected and analyzed at the base of each boring.

**003.03B4.** Soil samples shall be collected in a manner to minimize disturbance of the soil structure. The predominant soil type of each sample (e.g., clay, sand, gravel) shall be recorded separately and submitted on a boring log as an addendum to the closure assessment report.

### **003.03C. Line Assessment**

**003.03C1.** One boring shall be drilled at the point where the product lines leave the tank excavation.

**003.03C2.** One boring shall be drilled within three (3) feet of each dispenser island. The borings shall be placed in the best estimated down gradient direction of ground water flow.

**003.03C3.** If the running length of the product line between the borings required in (C1) and (C2) above exceeds 25 feet, additional borings shall be placed so borings are equally spaced and there is never more than 25 feet between any borings.

**003.03C4.** All product line borings shall conform to §003.03B2 of this chapter.

**003.03C5.** Samples shall be collected and analyzed as required in §003.03B3 and §003.03B4 of this chapter.

**003.04. Removal Closure Assessment.** All underground storage tanks and all product piping shall be inspected for corrosion holes and/or other points of leakage. A description of the inspection methods, and if leakage is verified, a description of the cause and location must be submitted to the State Fire Marshal in the closure assessment report. Notification of any contamination shall be made in accordance with §004.02 of this chapter.

**003.04A.** Each tank and its associated piping shall be visually inspected for holes, cracks, corrosion or any signs of leakage. All welds and seams must be thoroughly scraped and inspected. The capacity of each tank shall be recorded. Results of these inspections shall be documented in the State Fire Marshal closure assessment report.

**003.04B.** All piping must be exposed and inspected in place.

#### **003.05. Tank Excavation**

**003.05A.** Backfill material shall be removed to expose undisturbed native soils at the base of the excavation.

**003.05B.** The base of the excavation shall be inspected for contamination and, if present, the owner/operator has the option to over excavate all areas of contamination until clean soils are encountered. Overexcavation done in this manner is subject to Department of Environmental Quality remedial action regulations. To verify that soils are free of contamination, soil samples shall be collected and analyzed at this point.

**003.05C.** The final disposal location of contaminated soil shall be reported on the State Fire Marshal closure assessment report. Soil disposal procedures are subject to Department of Environmental Quality oversight.

**003.05D.** A minimum of two samples per tank shall be collected and analyzed from the undisturbed native soils at the base of the excavation. Sample locations shall correspond to points of leakage from the tank or line. If no leakage was found, one sample shall be collected and analyzed at each end of the tank at the base of the excavation. If ground water is encountered during sampling, the sample media must be water.

#### **003.06. Line Excavation Assessment**

**003.06A.** All product piping shall be removed by trenching and

exposing the entire length of the lines.

**003.06B.** The procedures described in §003.04A and §003.04B of this chapter shall be followed.

**003.06C.** A soil sample from native soil at the base of the piping excavation shall be collected and analyzed at areas of obvious contamination or points of leakage or, if no leakage is observed, one sample shall be taken every ten (10) feet, beginning at the tank excavation perimeter and extending to the dispensers.

**003.06D.** The base of the excavation shall be inspected for contamination and, if present, the owner/operator may over excavate according to the procedures in §003.05B and §003.05C above.

## **004. REPORTING REQUIREMENTS**

### **004.01. Certification of Compliance**

**004.01A.** A certification of compliance with Title 159 regulations shall be required for every closure or change in service.

### **004.02. Notification of Release**

**004.02A.** Notification shall be made within 24 hours whenever contamination is discovered. The owner/operator shall report to the Nebraska Department of Environmental Quality and the State Fire Marshal in accordance with Chapter 8 of this title.

**004.02B.** When public safety threats are identified during a closure assessment, the State Fire Marshal shall be notified immediately.

### **004.03. Closure Assessment Report**

**004.03A.** The owner/operator is responsible for ensuring the closure assessment report is properly completed and submitted on the appropriate State Fire Marshal reporting forms. The report shall be submitted to the State Fire Marshal with 45 days of the date of removal or closure in place. This report shall contain at a minimum:

**004.03A1.** The sample custody record, the name of the laboratory that was used and the original laboratory data sheets shall be submitted with the report.

**004.03A2.** A site drawing of the tank system (tanks and product lines) placement and/or excavation and dispenser(s) location. The site drawing shall be to scale, including distances and directions as measured. The relationship of the tank system to permanent objects, such as curbs or buildings, must be depicted in order to facilitate location at a later date. The location of the facility shall be placed on a separate map (e.g., 7.5 minute quadrangle, city, county, highway, hand drawn) or described in a narrative. The map or narrative shall provide the exact location of the facility in relation to cross streets or other map benchmarks.

**004.03A3.** The location at which samples were collected.

**004.03A4.** The type of regulated substance last stored in the tank.

**004.03A5.** A description of the contaminated soil disposal method and final disposal location.

**004.03A6.** The completed Certification of Compliance.

**004.03A7.** The completed tank closure checklist.

**004.03A8.** The actual tank dimensions.

**004.03B.** The report shall be submitted to:

**State Fire Marshal  
Flammable Liquid Storage Division  
246 South 14th Street  
Lincoln, NE 68508-1804**

## **005. APPLICABILITY TO PREVIOUSLY CLOSED UST SYSTEMS**

When directed by the State Fire Marshal, the owner and operator of an UST system permanently closed before January 1, 1989 must assess the excavation zone and close the UST system in accordance with this chapter if there is a reasonable probability that releases from the UST may, in the judgment of the State Fire Marshal, pose a current or potential threat to human health and the environment.

## **006. CLOSURE RECORDS.**

Owners and operators must maintain records in accordance with §006 in

Chapter 6 that are capable of demonstrating compliance with closure requirements under this chapter.

Legal Citation: Title 159, Chapter 10  
Nebraska State Fire Marshal